

CLAIMS

What is claimed is:

1. A contact lens comprising:
a central portion including an optical zone;
a peripheral portion surrounding the central portion, the peripheral portion having a first thickness; and
at least two areas of unequal size located on the peripheral portion, with each area having a thickness less than the first thickness.
2. The contact lens of claim 1, wherein the thickness of the at least two zones is unequal.
3. The contact lens of claim 1, wherein the contact lens is a hybrid hard-soft contact lens, with the central portion being substantially rigid, and the peripheral portion being substantially flexible.
4. The contact lens of claim 3, wherein the central portion has a diameter that ranges between about 4.0 millimeters to about 12.0 millimeters, and the peripheral portion has an outer diameter that ranges between about 10.0 millimeters to about 18.0 millimeters.

5. The contact lens of claim 1, wherein the central portion has a diameter that ranges between about 4.0 millimeters to about 12.0 millimeters, and the peripheral portion has an outer diameter that ranges between about 10.0 millimeters to about 18.0 millimeters.
6. The contact lens of claim 1, further including a junction between the central portion and the peripheral portion, with the junction comprising a substantially V-shaped surface.
7. The contact lens of claim 1, wherein an angle comprising the substantially V-shaped surface ranges between about 10 degrees to about 170 degrees.
8. The contact lens of claim 1, wherein the contact lens is constructed to include a prescription obtained from a wavefront aberrometer.
9. The contact lens of claim 1, wherein the contact lens is constructed to include a prescription for presbyopia.
10. The contact lens of claim 1, wherein the contact lens is constructed to include a mark for determining a registration error.
11. The contact lens of claim 10, wherein the mark is selected from a group consisting of: a circumferential mark; a radial mark; at least three marks concentric to a contact lens center and a radial mark; a circumferential mark and a radial mark; a

grooved mark; an elevated mark; and a mark having a index of refraction greater than an index of refraction in an adjacent material.

12. The contact lens of claim 10, wherein the mark is visible with a light selected from a group consisting of: a light having a wavelength ranging from about 700 nanometers to about 400 nanometers; an infrared light; and a ultraviolet light.

13. A contact lens comprising:
a central portion including an optical zone;
a peripheral portion surrounding the central portion, the peripheral portion having a first thickness; and
at least one area located on the central portion, with the area having a thickness less than the first thickness.

14. The contact lens of claim 13, wherein the at least one area is structured to accommodate a keratoconus ectasia.

15. The contact lens of claim 13, wherein the contact lens is a hybrid hard-soft contact lens, with the central portion being substantially rigid, and the peripheral portion being substantially flexible.

16. The contact lens of claim 13, wherein the central portion has a diameter that ranges between about 4.0 millimeters to about 12.0 millimeters, and the peripheral

portion has an outer diameter that ranges between about 10.0 millimeters to about 18.0 millimeters.

17. The contact lens of claim 13, further including a junction between the central portion and the peripheral portion, with the junction comprising a substantially V-shaped surface.

18. The contact lens of claim 13, wherein an angle comprising the substantially V-shaped surface ranges between about 10 degrees to about 170 degrees.

19. The contact lens of claim 13, wherein the contact lens is constructed to include a prescription obtained from a wavefront aberrometer.

20. The contact lens of claim 13, wherein the contact lens is constructed to include a prescription for presbyopia.

21. The contact lens of claim 13, wherein the contact lens is constructed to include a mark for determining a registration error.

22. The contact lens of claim 21, wherein the mark is selected from a group consisting of: a circumferential mark; a radial mark; at least three marks concentric to a contact lens center and a radial mark; a circumferential mark and a radial mark; a

grooved mark; an elevated mark; and a mark having a index of refraction greater than an index of refraction in an adjacent material.

23. A method of obtaining a corrective prescription, the method comprising the steps of:

providing at least one contact lens, the contact lens having at least two areas of unequal size, with each area comprising a recessed region;

placing the contact lens on an eye; and

obtaining a corrective prescription while the contact lens is on the eye.

24. The method of claim 23, wherein the recessed region comprises a contact lens area having a thickness that is less than an adjacent contact lens area thickness.

25. The method of claim 23, wherein the step of obtaining a corrective prescription while the contact lens is on the eye includes the step of:

determining an eye lens rotational and translational registration error relative to a center of an eye pupil or to an eye visual axis.

26. The method of claim 25, wherein the contact lens includes at least one mark for determining the eye lens rotational and translational registration error.

27. The method of claim 26, wherein the mark is selected from a group consisting of: a circumferential mark; a radial mark; at least three marks concentric to the contact lens

center and a radial mark; a circumferential mark and a radial mark; a grooved mark; an elevated mark; and a mark having an index of refraction greater than an index of refraction in an adjacent material.

28. The method of claim 26, wherein the mark is visible with a light selected from a group consisting of: a light having a wavelength ranging from about 700 nanometers to about 400 nanometers; an infrared light; and a ultraviolet light.

29. A contact lens comprising:
a central portion including an optical zone;
a peripheral portion surrounding the central portion, the peripheral portion including a mark comprising a first line that intersects a second line

30. The contact lens of claim 29, wherein the central portion has a diameter that ranges between about 4.0 millimeters to about 12.0 millimeters, and the peripheral portion has an outer diameter that ranges between about 10.0 millimeters to about 18.0 millimeters.

31. The contact lens of claim 29, wherein the mark comprises a cross comprises a first line that intersects a second line.

32. The contact lens of claim 29, further comprising a mark comprising an alphabet letter.

33. The contact lens of claim 32, wherein the alphabet letter is a “L” or a “R”.
34. The contact lens of claim 32, wherein the alphabet letter assists a wearer in placing the contact lens so that the contact lens is oriented properly in an eye.
35. The contact lens of claim 29, wherein the mark is used by a contact lens fitter to determine an orientation of the contact lens in an eye and for placement of a corrective optic prescription within the contact lens.
36. The contact lens of claim 29, wherein the contact lens is a hybrid hard-soft contact lens, with the central portion being substantially rigid, and the peripheral portion being substantially flexible.
37. A contact lens comprising:
- a central portion including an optical zone;
 - a peripheral portion surrounding the central portion, the peripheral portion having a first thickness; and
 - at least two areas of unequal size located on the peripheral portion, with a first area having a thickness less than the first thickness, and a second area having a thickness greater than the first thickness.

38. The contact lens of claim 37, wherein the contact lens is a hybrid hard-soft contact lens, with the central portion being substantially rigid, and the peripheral portion being substantially flexible.

39. The contact lens of claim 37, wherein the central portion has a diameter that ranges between about 4.0 millimeters to about 12.0 millimeters, and the peripheral portion has an outer diameter that ranges between about 10.0 millimeters to about 18.0 millimeters.

40. The contact lens of claim 37, wherein the contact lens is constructed to include a prescription obtained from a wavefront aberrometer.

41. The contact lens of claim 37, wherein the contact lens is constructed to include a prescription for presbyopia.

42. The contact lens of claim 37, wherein the contact lens is constructed to include a mark for determining a registration error.

43. The contact lens of claim 42, wherein the mark is selected from a group consisting of: a circumferential mark; a radial mark; at least three marks concentric to a contact lens center and a radial mark; a circumferential mark and a radial mark; a grooved mark; and an elevated mark.

44. The contact lens of claim 42, wherein the mark is visible with a light selected from a group consisting of: a light having a wavelength ranging from about 700 nanometers to about 400 nanometers; an infrared light; and an ultraviolet light.